

LEAD BASED PAINT ASSESSMENT

20Pb17012

Prepared for:

Ex. 6 Personal Privacy (PP)

Ex. 6 Personal Privacy (PP)

Stanley Avenue

Clarksburg, West Virginia 26301

Date of Assessment
September 16, 2020

Prepared By:



Paul Ice

7117090007



STATE OF WEST VIRGINIA
DEPARTMENT OF HEALTH AND HUMAN RESOURCES
Bureau for Public Health
Office of Environmental Health Services

Bill J. Crouch
Cabinet Secretary

Ayne Amjad, MD, MPH
Commissioner & State Health Officer

October 19, 2020

Ex. 6 Personal Privacy (PP)

Stanley Ave.
Clarksburg, West Virginia 26301

Re: Ex. 6 Personal Privacy (PP)
20P617012

Dear Mr. and Mrs. Ex. 6 Personal Privacy (PP)

The Office of Maternal, Child and Family Health contacted the Office of Environmental Health Services and requested an Environmental Lead Assessment be conducted at Quinn Okes-Kincade's home in Clarksburg, West Virginia.

The following report provides my findings, building background, testing conducted, test results and recommendations. If you have any questions concerning this report, please contact me at this office.

Best regards,

Paul D. Ice
Environmental Resource Specialist III
Radiation, Toxics and Indoor Air Division

Summary of Findings:

On September 16, 2020, the Office of Environmental Health Services Lead Program conducted an Environmental Lead Assessment of the residence at [REDACTED] Stanley Avenue, Clarksburg, West Virginia, to identify sources of environmental lead. [REDACTED] mother and father were present during the assessment.

A walk-through of the residence was conducted prior to the assessment in order to identify testing combinations and select locations for sampling. *(Note: Testing combination is a term referring to a specific component and its underlying substrate in a room.)*

General housekeeping in the residence was good; however, extra attention should be given to areas that tested positive for lead. The interior of the home has drywall walls on the inside and painted wood on the outside. Some interior remodeling and renovations have been done on the upstairs bathroom and painting of some windowsills. There is some peeling and flaking paint inside the home in the sunroom and dining room ceilings. Peeling and flaking paint on the outside of the home is on the painted outside walls as well as a garage/apartment located in back yard.

The family use tap water for cooking and cleaning. Household water source is public water. Household furniture is wood, metal and upholstery, or some combination thereof, and appears to be lead-safe. The home is heated with forced gas air heat and cooled with a central air conditioner. The sunroom has window air conditioners for cooling. Play areas include the living room, bedroom and sunroom on the inside of the home. There is a small area in the backyard that has a small swing for the child to play. Quinn currently does not spend regular time at another location built before 1978. Previously Quinn did attend a daycare that may have been older but has not attended in last 3 to 4 months.

Background:

The subject property is a home built around 1920 and is within an urban setting with homes built near the same time. Recent renovations include some scraping and painting on the sunporch and a bathroom renovation, down to studs, in the second-floor bathroom. The second-floor bathroom still needs to be completed. Future renovations include repainting of various surfaces. The family does not have any hobbies or work outside the home that appears to contribute to the child's blood lead level. Quinn has had low iron levels.

The inspection protocol was in accordance with the *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*, as revised July 2012, including supplementary updates and all other applicable federal and state regulations. The following report provides my findings, test results and recommendations.

Environmental Observations & Findings:

Testing:

A lead-based paint assessment is a surface-by-surface investigation to determine the presence of lead-based paint and the provision of a report explaining the results of the investigation. The assessment conducted was **NOT** a lead risk assessment.

Testing was performed using the Niton Corporation's model XL-300A (Serial#103510) x-ray fluorescence (XRF) analyzer. An XRF reading of < (less than) 1.0 mg/cm² (milligrams per square centimeter) is considered "negative" and indicates that only a "trace" amount of environmental lead may be present, but does **NOT** pose an environmental lead hazard. This XRF is operated in the standard test mode using the rules and procedures found in the Performance Characteristic Sheet (Edition #1) for the Niton Corporation model XL-300A. This instrument is not substrate dependent according to that performance characteristic sheet. Therefore, no substrate corrections were required during this inspection. The Niton XL-300A is a hand-held portable lead detector, designed to make accurate, non-destructive measurement of lead concentrations.

The XRF was calibrated prior to use and at the end of the testing or every four hours whichever came first. All calibrations were conducted on a 1.04 ± 0.06 mg/cm² Orange SRM 2573 paint film. All calibrations are noted on the x-ray fluorescence data sheets.

The results of the testing revealed **Thirty-Four** of the XRF readings obtained indicate the presence of environmental lead in or around your house.

Attached is a printout of all XRF readings and their locations. Calibration readings are taken to ensure that the XRF is working properly and are not to be construed to indicate the presence of lead-based paint in the home.

A room equivalent is an identifiable part of a building, such as a room, exterior sides, or an exterior area. Hallways, stairways and exterior areas are all examples of room equivalents. Walls are identified as A, B, C and D. The A in each room corresponds with the wall on which the main entrance of the building is located. The remaining walls are located in order proceeding clockwise from the A wall. Each room equivalent is made up of components. For example, components in a room are the ceiling, floor, walls, a door and its jamb and casing, the window sash, casing or apron. The substrate is the material underneath the paint. Many substrates exist; however, HUD Final Guidelines recommend classifying substrates into one of six (6) types: brick, concrete, drywall, metal, plaster and wood. These substrate types are intended to include a broad range of materials.

If the true substrate is not one of the six (6) types, the substrate that most closely matches the true substrate is selected. For substrates on top of substrates, such as plaster on concrete, the substrate directly beneath the paint surface is used. A testing combination is characterized by the room equivalent, component, and substrate. The testing location is a specific area on a testing combination where the XRF instrument measures for lead-based paint.

The following is a list of observations and findings documented during this evaluation.

- The side "A" door frame in the entryway tested positive for lead.
- The side "A" wall in the kitchen tested positive for lead.
- The side "B" wall in the kitchen tested positive for lead.
- The sink in the kitchen tested positive for lead.
- The side "C" door frame in the kitchen tested positive for lead.
- The side "A" wall on the back porch tested positive for lead.
- The side "A" window on the back porch tested positive for lead.
- The side "C" wall on the back porch tested positive for lead.
- Multiple side "B" windows on the sun porch tested positive for lead.
- Multiple side "C" windows on the sun porch tested positive for lead.
- Multiple side "A" windows on the sun porch tested positive for lead.
- The side "C" wall on the sun porch tested positive for lead.
- The side "D" door on the sun porch tested positive for lead.
- The ceiling on the sun porch tested positive for lead.
- The fireplace tile in bedroom 1 tested positive for lead.
- The side "A" window in bedroom 1 tested positive for lead.
- The side "A" window in bedroom 1 tested positive for lead.
- The side "B" window in bedroom 3 bath tested positive for lead.
- The tub in bedroom 3 bath tested positive for lead.
- Wood in the demoed bathroom tested positive for lead.
- Wood pieces stored in bedroom 4 tested positive for lead.
- The wall on the front porch tested positive for lead.
- The door trim on the front porch tested positive for lead.
- The beam on the front porch tested positive for lead.
- The side "A" window on the outside of the home tested positive for lead.
- The wall on the side "B" on the outside of the home tested positive for lead.
- The building in the back yard tested positive for lead.

Laboratory Results:

One (1) water sample, three (3) soil samples, four (4) dust wipe samples and one hundred fourteen (114) XRF readings were taken during the assessment. The analyses of the water, soil and dust wipe samples were performed by private laboratories. Copies of the results have been included with this report.

Water Sampling Procedure:

A one (1) liter sample is taken, in a proper container, from a faucet where the water has remained motionless in the line for a minimum of six (6) hours. The sample is given a unique identification number and this number is then entered on the chain-of-custody form which the inspector signs. A copy is retained and the original is sent to an accredited laboratory. Upon

receipt, laboratory personnel verify the sample and chain-of-custody information match and then sign the form. A copy is retained by the laboratory and the signed original is returned with the results to the inspector.

Water Sample Laboratory Result:

The current West Virginia guideline for lead in drinking water is 15 ppb (parts per billion). The laboratory reported the following lead level in the water sample collected during this assessment:

Sample No.	Location	Pb ppb	Pos. (15 ppb)	Neg. ¹
20Pb17012-W1	Bathroom Sink - cold	10.8		X

¹ Lead may be present but not at a level of concern.

Soil Sample Laboratory Result:

West Virginia guidelines specify that lead levels in bare, high contact play areas must be (less than) <400 ppm (parts per million) and (less than) <1200 ppm in bare soil in the remainder of the yard. The laboratory reported the following lead level in the soil sample collected during this assessment:

Sample No.	Location	Pb µg/g ppm	Pos. (≥400 ppm)	Neg. ¹
20Pb17012-S1	Garden	110		X
20Pb17012-S2	Bare Spot Back Yard	290		X
20Pb17012-S3	Drip Line	370		X

Dust Wipe Samples:

The West Virginia clearance standards for lead dust are <40 µg/ft² (micrograms per square foot) for floors and other interior horizontal surfaces, <250µg/ft² for interior window stools/sills, and <400 µg/ft² for window wells/troughs, exterior concrete, or other rough surfaces. The laboratory reported the following lead levels in the dust wipe samples collected during this assessment:

Sample No.	Location	Total Pb µg	Pb µg/ft ²	Pos.	Neg. ¹
20Pb17012-DW1	Child's Window	350	1400	X	
20Pb17012-DW2	Pocket Door	18.4	73.6	X	
20Pb17012-DW3	Desk	57.7	231	X	
20Pb17012-DW4	Blank	<5.00			X

¹Lead may be present but not at a level of concern.

*Note that West Virginia Dust Wipe standards and Federal Dust Wipe standards are different at this time. Report uses West Virginia standards, but laboratory report uses Federal standard. There is NO comparable surface for the above dust wipes but were used to find sources of lead contamination.

Recommendations:

The exterior siding is in poor condition and tested **positive** for lead. **Do not** power wash. Power washing, also known as pressure washing involves using a high-velocity water spray to clean dirt and residue from the exterior of a house. Undertaking such a large project can be over-whelming, the use of a West Virginia licensed lead abatement contractor is recommended.

- Exterior work should be done on calm days. Wet-misting or vacuuming should be used to control lead dust and paint chips during removal. The ground around the residence should be protected with heavy (6-mil) plastic sheets. The outer edges of the sheeting should be raised to trap dust, debris, and liquid wastes. Methods of exterior lead abatement include:
- Encasement/Encapsulation: This method involves the encapsulation/encasement of the lead based paint with a fluid applied coating or coatings system that dries and cures like a regular paint yet does not allow the lead in the original paint layer to migrate to the surface coating and cause a reintroduction of the original lead based paint hazard into the environment as the new coating deteriorates.
- Enclosure: This method involves the enclosure of the lead-based painted surface by vinyl siding or another material that stops lead dust and chips from being introduced into the environment.
- Removal/Replacement: This method involves removal/replacement of the lead-based paint or the building component coated with lead-based paint with a new building component and/or a non-lead containing coating. When removing lead based paint make sure to contain the area and use techniques involving wet scraping or the use of a product that allows for the wet removal of the lead based paint to limit the generation of hazardous lead containing dust.

Children can swallow lead or breathe lead contaminated dust if they play in dust or dirt and then put their fingers or toys in their mouth. Wash your own and your child's hands frequently to rinse off any dust or dirt, especially before meals, naps and bedtime. Keep children's fingernails clean and trimmed. Do not allow your child to put things other than food in their mouth.

Wash children's toys, bottles, and pacifiers often, and always wash them after they fall on the floor. Stuffed toys in particular accumulate dust and should be washed often.

Keep children from chewing on painted surfaces, such as window sills, cribs or playpens.

Avoid giving your children fried and fatty foods. These foods allow the body to absorb lead faster. Cut down on fat by baking, broiling, or steaming food. Children with empty stomachs absorb more lead than children with full stomachs. Provide your child with healthy snacks between meals.

Always clean up dust and paint chips with wet mops or rags soaked in a solution of warm water and a general all-purpose cleaner or a cleaner made specially for lead.

Wet-mop dusty surfaces at least once a week. Use three buckets, one for wash water, one for rinse water and one for dirty water. Always wring dirty water into the dirty water bucket. To prevent recontamination of cleaned surfaces, wash mops and rags thoroughly after each use. If this is not possible, or if you have already used the mops and rags several times, place them in plastic bags and dispose of them carefully. Wet mop floors and wash window wells often to get rid of lead dust, vacuuming can spread lead dust unless you use a 99.97% efficient HEPA filter bag in your vacuum.

Consider replacing windows and doors that are covered with lead paint, utilizing properly trained individuals and appropriate engineering controls. Friction surfaces on windows and doors can be an important source of lead dust.

Lead-contaminated soil frequently results from improperly discarded automotive and marine batteries and leaded gasoline, as well as lead-based paint, and can present a serious environmental lead hazard. When children and pets play in lead-contaminated soil, lead dust can be brought into and spread throughout the house. Furthermore, when vegetables grown in lead-contaminated soil are eaten, lead poisoning may occur.

Since the lead level found in the soil sample does not dictate soil removal, several landscaping methods can help reduce exposure to any lead contaminated soil:

- On bare soil areas against or near buildings, plant shrubbery, ground cover, sod or grass, or spread mulch a minimum of six (6) inches deep.
- Relocate play areas apart from contaminated soil.
- Use doormats and remove shoes upon entering the house.
- Consider paving over lead-contaminated soil, especially if existing pavement is adjacent.

Since exposed and deteriorating lead-based paint can significantly contaminate house dust, you should frequently inspect re-painted areas for paint integrity. When teeth marks, alligatoring, cracking, peeling and/or flaking are evident, the affected surface(s) and/or architectural component(s):

- may be covered with another building component to **enclose** the lead hazard, or

- may simply be **removed** from the structure, by trained individuals in accordance with approved procedures.
- Also, lead-based paint may be covered with **intact** non-lead-based paint. These intact re-painted areas are of somewhat less concern than deteriorating surfaces.

Prior to performing any of the above operations, children should be removed from the house. Also, if you wish to wear respiratory protection while conducting any of these projects, consult with your physician **first**.

If re-painting, begin with covering the floor or the ground under the work area with a sturdy, disposable plastic drop cloth, such as 6 mil polyethylene sheeting. The surface(s) must then be **wet-scraped** to remove any loose paint scale and then the entire area must be **wet-cleaned** to clear it of lead paint debris and lead dust residue generated by the scraping operation. The recommended cleaning solution is a mixture of warm water and a general all-purpose cleaner or a cleaner made specially for lead. Used wash rags may be discarded with your routine garbage and spent wash water may be flushed to the sanitary sewer.

Do not dry-scrape, belt sand, torch flame or use a heat gun above 1100 F. These operations will create a serious health hazard by generating dangerous lead dust.

After thoroughly wet cleaning, work from outside edges inward, carefully folding the drop cloth with the scraping debris inside, place the folded drop cloth in a sturdy plastic garbage bag, and seal the bag securely. Contact a local sanitary landfill and comply with their requirements for receiving lead-based paint scraping debris. Note that a landfills requirements for receipt of lead-based paint scraping debris are sometimes more stringent than those requirements for lead-based painted architectural components. Finally, when the cleaned surfaces are fully dried, apply a coat of high-quality primer, and finish with a coat or two of high-quality paint. Be sure that the types of primer and paint bases match: latex-based primer under latex paint, oil primer under oil paint, acrylic primer under acrylic paint, etc.

The bathtub interior tested positive for lead by XRF method. While no standard applies to bathtubs, they are intended for regular child use, and thus should be free of potential lead hazards. When signs of deterioration are visible, replacement or re-enameling of the tub is advised. Use a mat designed for tubs to minimize contact with the deteriorated enamel as a temporary means. Do not allow children to drink tub water.

Keep an additional copy of this report in a secure location, in the event the original report is lost or misplaced.

Disclaimer

The environmental lead assessment conducted was not a lead risk assessment. XRF readings and/or samples collected during an assessment reflect the lead level of that particular area. Readings and samples are collected at random in accordance with established procedures to obtain a representative overview of lead levels within or around a housing unit. Therefore, it should not be construed that every surface or area in or around a housing unit was sampled or checked for

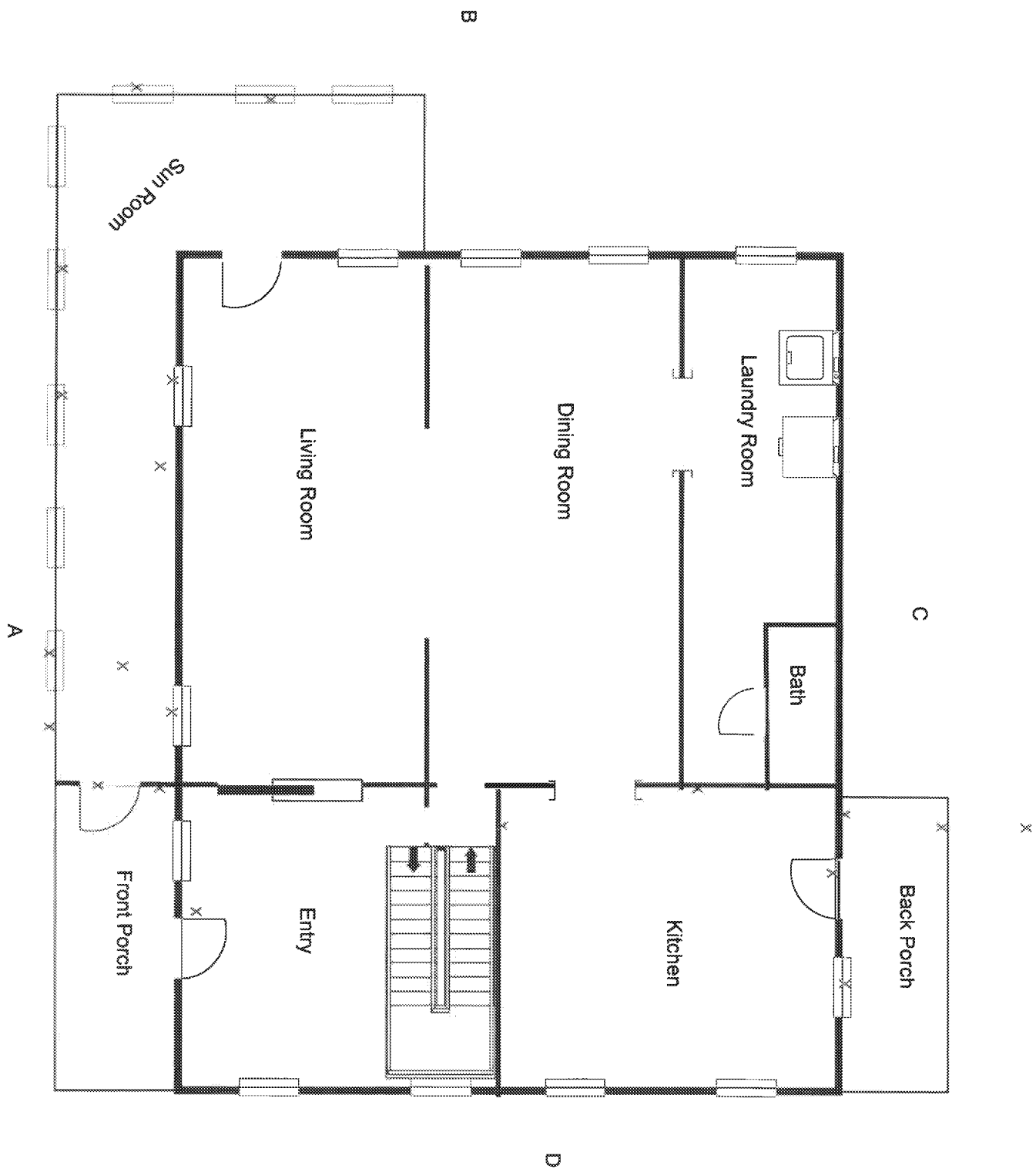
lead content. Additional testing should be conducted if any home renovations are undertaken which may disturb surfaces which were not tested. This report is subject to the disclosure requirements developed under Section 1018 of the Residential Lead-based Paint Hazard Reduction Act of 1992 in Subpart E, "Residential Property Renovation."

Time	Component	Substrate	Side	Inspector	Floor	Room	Results	PbL	Units
9/16/2020 9:17	CALIBRATE						Negative	0.8	mg / cm ^2
9/16/2020 9:17	CALIBRATE						Positive	1.1	mg / cm ^2
9/16/2020 9:18	WALL	DRYWALL	A	ICE	FIRST	ENTRY	Negative	< LOD	mg / cm ^2
9/16/2020 9:18	WALL	DRYWALL	B	ICE	FIRST	ENTRY	Negative	< LOD	mg / cm ^2
9/16/2020 9:20	WALL	DRYWALL	C	ICE	FIRST	ENTRY	Negative	0.19	mg / cm ^2
9/16/2020 9:20	DOOR	WOOD	A	ICE	FIRST	ENTRY	Negative	< LOD	mg / cm ^2
9/16/2020 9:21	TRIM	WOOD	A	ICE	FIRST	ENTRY	Negative	< LOD	mg / cm ^2
9/16/2020 9:21	WALL	DRYWALL	D	ICE	FIRST	ENTRY	Negative	0.13	mg / cm ^2
9/16/2020 9:22	ABOVE DOOR	WOOD	A	ICE	FIRST	ENTRY	Negative	< LOD	mg / cm ^2
9/16/2020 9:23	DOOR FRAME	WOOD	A	ICE	FIRST	ENTRY	Positive	27.45	mg / cm ^2
9/16/2020 9:26	WALL	DRYWALL	A	ICE	FIRST	LIVING ROOM	Negative	< LOD	mg / cm ^2
9/16/2020 9:26	WALL	DRYWALL	C	ICE	FIRST	LIVING ROOM	Negative	< LOD	mg / cm ^2
9/16/2020 9:26	WALL	DRYWALL	D	ICE	FIRST	LIVING ROOM	Negative	< LOD	mg / cm ^2
9/16/2020 9:27	FLOOR	WOOD	D	ICE	FIRST	LIVING ROOM	Negative	< LOD	mg / cm ^2
9/16/2020 9:28	WINDOW	WOOD	A	ICE	FIRST	LIVING ROOM	Negative	< LOD	mg / cm ^2
9/16/2020 9:29	WALL	DRYWALL	A	ICE	FIRST	DINING	Negative	0.28	mg / cm ^2
9/16/2020 9:30	WALL	DRYWALL	B	ICE	FIRST	DINING	Negative	0.23	mg / cm ^2
9/16/2020 9:31	WALL	DRYWALL	C	ICE	FIRST	DINING	Negative	0.29	mg / cm ^2
9/16/2020 9:31	WALL	DRYWALL	D	ICE	FIRST	DINING	Negative	0.4	mg / cm ^2
9/16/2020 9:32	DOOR	WOOD	D	ICE	FIRST	DINING	Negative	< LOD	mg / cm ^2
9/16/2020 9:33	WINDOW	MINIBLIND	B	ICE	FIRST	DINING	Negative	< LOD	mg / cm ^2
9/16/2020 9:33	PIANO	WOOD	C	ICE	FIRST	DINING	Negative	< LOD	mg / cm ^2
9/16/2020 9:34	WALL	DRYWALL	A	ICE	FIRST	LAUNDRY	Negative	< LOD	mg / cm ^2
9/16/2020 9:35	WALL	DRYWALL	B	ICE	FIRST	LAUNDRY	Negative	< LOD	mg / cm ^2
9/16/2020 9:35	WALL	DRYWALL	C	ICE	FIRST	LAUNDRY	Negative	< LOD	mg / cm ^2
9/16/2020 9:36	WINDOW	WOOD	B	ICE	FIRST	LAUNDRY	Negative	< LOD	mg / cm ^2
9/16/2020 9:36	WINDOW	WOOD	B	ICE	FIRST	LAUNDRY	Negative	< LOD	mg / cm ^2
9/16/2020 9:37	WINDOW	WOOD	B	ICE	FIRST	LAUNDRY	Negative	< LOD	mg / cm ^2
9/16/2020 9:38	WALL	DRYWALL	B	ICE	FIRST	BATHROOM	Negative	< LOD	mg / cm ^2
9/16/2020 9:38	DOOR	DRYWALL	D	ICE	FIRST	BATHROOM	Negative	< LOD	mg / cm ^2
9/16/2020 9:39	WALL	DRYWALL	A	ICE	FIRST	KITCHEN	Positive	1.1	mg / cm ^2
9/16/2020 9:41	WALL	DRYWALL	B	ICE	FIRST	KITCHEN	Positive	3.1	mg / cm ^2
9/16/2020 9:41	WALL	DRYWALL	C	ICE	FIRST	KITCHEN	Negative	< LOD	mg / cm ^2

Time	Component	Substrate	Side	Inspector	Floor	Room	Results	PbL	Units
9/16/2020 9:42	WALL	DRYWALL	C	ICE	FIRST	KITCHEN	Negative	< LOD	mg / cm ^2
9/16/2020 9:42	WALL	DRYWALL	D	ICE	FIRST	KITCHEN	Negative	< LOD	mg / cm ^2
9/16/2020 9:43	CABINET	WOOD	A	ICE	FIRST	KITCHEN	Negative	< LOD	mg / cm ^2
9/16/2020 9:43	FLOOR	WOOD	A	ICE	FIRST	KITCHEN	Negative	< LOD	mg / cm ^2
9/16/2020 9:44	SINK	METAL		ICE	FIRST	KITCHEN	Positive	10.05	mg / cm ^2
9/16/2020 9:44	CABINET	WOOD	B	ICE	FIRST	KITCHEN	Negative	< LOD	mg / cm ^2
9/16/2020 9:47	DOOR FRAME	WOOD	C	ICE	FIRST	KITCHEN	Positive	1.9	mg / cm ^2
9/16/2020 9:48	WALL	WOOD	A	ICE	FIRST	PORCHBACK	Positive	1.6	mg / cm ^2
9/16/2020 9:49	FLOOR	WOOD		ICE	FIRST	PORCHBACK	Negative	< LOD	mg / cm ^2
9/16/2020 9:49	WINDOW	WOOD	A	ICE	FIRST	PORCHBACK	Positive	15	mg / cm ^2
9/16/2020 9:50	OUTER WALL	WOOD	C	ICE	FIRST	PORCHBACK	Positive	1.6	mg / cm ^2
9/16/2020 9:51	OUTER WALL	WOOD	C	ICE	FIRST	PORCHBACK	Positive	1.3	mg / cm ^2
9/16/2020 9:55	WINDOW	WOOD	B	ICE	FIRST	PORCH SUN	Positive	2	mg / cm ^2
9/16/2020 9:55	WINDOW	WOOD	B	ICE	FIRST	PORCH SUN	Negative	< LOD	mg / cm ^2
9/16/2020 9:55	WINDOW	WOOD	B	ICE	FIRST	PORCH SUN	Negative	0.6	mg / cm ^2
9/16/2020 9:56	WINDOW	WOOD	B	ICE	FIRST	PORCH SUN	Positive	1.3	mg / cm ^2
9/16/2020 9:56	WINDOW	WOOD	B	ICE	FIRST	PORCH SUN	Positive	7.05	mg / cm ^2
9/16/2020 9:57	WINDOW	WOOD	B	ICE	FIRST	PORCH SUN	Positive	6.15	mg / cm ^2
9/16/2020 9:58	WINDOW	WOOD	C	ICE	FIRST	PORCH SUN	Positive	2.2	mg / cm ^2
9/16/2020 9:58	WINDOW	WOOD	C	ICE	FIRST	PORCH SUN	Positive	6.9	mg / cm ^2
9/16/2020 9:58	WINDOW	WOOD	C	ICE	FIRST	PORCH SUN	Positive	9.45	mg / cm ^2
9/16/2020 9:59	WALL	WOOD	C	ICE	FIRST	PORCH SUN	Positive	10.65	mg / cm ^2
9/16/2020 10:00	WINDOW	WOOD	A	ICE	FIRST	PORCH SUN	Positive	12.75	mg / cm ^2
9/16/2020 10:01	DOOR	WOOD	D	ICE	FIRST	PORCH SUN	Positive	15.75	mg / cm ^2
9/16/2020 10:02	CEILING	WOOD	D	ICE	FIRST	PORCH SUN	Positive	11.85	mg / cm ^2
9/16/2020 10:05	FLOOR STAIR	WOOD		ICE	BASEMENT		Negative	< LOD	mg / cm ^2
9/16/2020 10:06	DOOR	WOOD	B	ICE	BASEMENT		Negative	< LOD	mg / cm ^2
9/16/2020 10:06	DOOR	WOOD	B	ICE	BASEMENT		Negative	0.23	mg / cm ^2
9/16/2020 10:07	WALL	DRYWALL	B	ICE	BASEMENT		Negative	0.4	mg / cm ^2
9/16/2020 10:07	DOOR	DRYWALL	D	ICE	BASEMENT		Negative	< LOD	mg / cm ^2
9/16/2020 10:08	WINDOW	WOOD	B	ICE	BASEMENT		Negative	0.7	mg / cm ^2
9/16/2020 10:13	WINDOW	WOOD	D	ICE	BASEMENT	STAIR	Negative	< LOD	mg / cm ^2
9/16/2020 10:13	WALL	WOOD	A	ICE	SECOND	HALL	Negative	< LOD	mg / cm ^2

Time	Component	Substrate	Side	Inspector	Floor	Room	Results	PbL	Units
9/16/2020 10:15	WALL	WOOD	B	ICE	SECOND	HALL	Negative	0.4	mg / cm ^2
9/16/2020 10:16	WALL	WOOD	D	ICE	SECOND	HALL	Negative	< LOD	mg / cm ^2
9/16/2020 10:16	DOOR	WOOD	C	ICE	SECOND	HALL	Negative	< LOD	mg / cm ^2
9/16/2020 10:17	DOOR	WOOD	B	ICE	SECOND	HALL	Negative	< LOD	mg / cm ^2
9/16/2020 10:18	WALL	DRYWALL	A	ICE	SECOND	BEDROOM 1	Negative	< LOD	mg / cm ^2
9/16/2020 10:19	WALL	DRYWALL	B	ICE	SECOND	BEDROOM 1	Negative	0.3	mg / cm ^2
9/16/2020 10:19	WALL	DRYWALL	C	ICE	SECOND	BEDROOM 1	Negative	0.3	mg / cm ^2
9/16/2020 10:20	toy dog	WOOD		ICE	SECOND	BEDROOM 1	Negative	< LOD	mg / cm ^2
9/16/2020 10:21	tile	CONCRETE		ICE	SECOND	BEDROOM 1	Positive	7.5	mg / cm ^2
9/16/2020 10:22	DOOR	WOOD	C	ICE	SECOND	BEDROOM 1	Negative	< LOD	mg / cm ^2
9/16/2020 10:22	DOOR	WOOD	C	ICE	SECOND	BEDROOM 1	Negative	< LOD	mg / cm ^2
9/16/2020 10:23	WINDOW	WOOD	A	ICE	SECOND	BEDROOM 1	Positive	1.9	mg / cm ^2
9/16/2020 10:23	WINDOW	WOOD	A	ICE	SECOND	BEDROOM 1	Positive	2.4	mg / cm ^2
9/16/2020 10:25	DOOR removed	WOOD	A	ICE	SECOND	HALL	Negative	< LOD	mg / cm ^2
9/16/2020 10:39	WALL	DRYWALL	A	ICE	SECOND	BEDROOM 2	Negative	< LOD	mg / cm ^2
9/16/2020 10:39	WALL	DRYWALL	B	ICE	SECOND	BEDROOM 2	Negative	< LOD	mg / cm ^2
9/16/2020 10:40	WALL	DRYWALL	C	ICE	SECOND	BEDROOM 2	Negative	0.27	mg / cm ^2
9/16/2020 10:41	WALL	DRYWALL	D	ICE	SECOND	BEDROOM 2	Negative	0.26	mg / cm ^2
9/16/2020 10:41	WINDOW	WOOD	B	ICE	SECOND	BEDROOM 2	Negative	< LOD	mg / cm ^2
9/16/2020 10:41	WINDOW	WOOD	B	ICE	SECOND	BEDROOM 2	Negative	0.27	mg / cm ^2
9/16/2020 10:42	WINDOW	WOOD	A	ICE	SECOND	BEDROOM 2	Negative	< LOD	mg / cm ^2
9/16/2020 10:43	CLOSET	WOOD	C	ICE	SECOND	BEDROOM 2	Negative	< LOD	mg / cm ^2
9/16/2020 10:44	WALL	DRYWALL	A	ICE	SECOND	BEDROOM 3	Negative	0.13	mg / cm ^2
9/16/2020 10:45	WALL	DRYWALL	B	ICE	SECOND	BEDROOM 3	Negative	0.09	mg / cm ^2
9/16/2020 10:46	WALL	DRYWALL	C	ICE	SECOND	BEDROOM 3	Negative	0.13	mg / cm ^2
9/16/2020 10:47	WALL	DRYWALL	D	ICE	SECOND	BEDROOM 3	Negative	0.25	mg / cm ^2
9/16/2020 10:49	CEILING bath	DRYWALL		ICE	SECOND	BEDROOM 3	Negative	< LOD	mg / cm ^2
9/16/2020 10:50	wall bath	DRYWALL	C	ICE	SECOND	BEDROOM 3	Negative	< LOD	mg / cm ^2
9/16/2020 10:50	wall bath	DRYWALL	C	ICE	SECOND	BEDROOM 3	Negative	< LOD	mg / cm ^2
9/16/2020 10:51	WINDOW bath	DRYWALL	B	ICE	SECOND	BEDROOM 3	Positive	4.8	mg / cm ^2
9/16/2020 10:51	WINDOW bath	MINIBLIND	B	ICE	SECOND	BEDROOM 3	Negative	< LOD	mg / cm ^2
9/16/2020 10:52	DOOR	WOOD	C	ICE	SECOND	BEDROOM 3	Negative	< LOD	mg / cm ^2
9/16/2020 10:52	tub	WOOD	C	ICE	SECOND	BEDROOM 3	Positive	67.8	mg / cm ^2

Time	Component	Substrate	Side	Inspector	Floor	Room	Results	PbL	Units
9/16/2020 10:54	FLOOR	WOOD	C	ICE	SECOND	Demo bath	Negative	< LOD	mg / cm ^2
9/16/2020 10:54	FLOOR	WOOD	C	ICE	SECOND	Demo bath	Negative	< LOD	mg / cm ^2
9/16/2020 10:55	wood	WOOD	C	ICE	SECOND	Demo bath	Positive	6.9	mg / cm ^2
9/16/2020 10:57	wood	WOOD	C	ICE	SECOND	BEDROOM 4	Negative	< LOD	mg / cm ^2
9/16/2020 10:57	wood	WOOD	C	ICE	SECOND	BEDROOM 4	Positive	3.6	mg / cm ^2
9/16/2020 11:00	CEILING	WOOD		ICE	SECOND	BEDROOM 4	Negative	< LOD	mg / cm ^2
9/16/2020 11:02	FLOOR	WOOD		ICE	SECOND	PORCH froht	Negative	< LOD	mg / cm ^2
9/16/2020 11:02	WALL	WOOD		ICE	SECOND	PORCH Front	Positive	11.1	mg / cm ^2
9/16/2020 11:02	DOOR trim	WOOD		ICE	SECOND	PORCH Front	Positive	18.75	mg / cm ^2
9/16/2020 11:03	WINDOW	WOOD		ICE	SECOND	PORCH Front	Positive	21.75	mg / cm ^2
9/16/2020 11:03	beam	WOOD		ICE	SECOND	PORCH Front	Positive	7.95	mg / cm ^2
9/16/2020 11:04	WINDOW	WOOD		ICE	FIRST	OUTSIDE	Negative	< LOD	mg / cm ^2
9/16/2020 11:04	WINDOW	WOOD	A	ICE	FIRST	OUTSIDE	Positive	7.05	mg / cm ^2
9/16/2020 11:05	WALL	WOOD	B	ICE	FIRST	OUTSIDE	Positive	2.6	mg / cm ^2
9/16/2020 11:06	building	WOOD	B	ICE	FIRST	OUTSIDE	Positive	1.1	mg / cm ^2
9/16/2020 11:08	Fencing Slates	WOOD	B	ICE	FIRST	OUTSIDE	Negative	< LOD	mg / cm ^2
9/16/2020 11:32	painted number						Negative	< LOD	mg / cm ^2





Ex. 6 Personal Privacy (PP)



Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237
Telephone: 800.347.4010

Lead in Soil Analysis Report

Report Number: 20-09-03212

Client: W. VA Bur. For Public Health
350 Capitol Street
Room 313
Charleston, WV 25301

Received Date: 09/21/2020
Analyzed Date: 09/24/2020
Reported Date: 09/24/2020

Project/Test Address: 20Pb17012 ☐ Stanley Ave; Clarksburg, WV
Collection Date: 09/16/2020

Client Number:
106425

Laboratory Results

Fax Number:
304-558-0524

Lab Sample Number	Client Sample Number	Collection Location	Concentration ppm (ug/g)	Narrative ID
20-09-03212-001	20PB17012-S1	GARDEN	110	
20-09-03212-002	20PB17012-S2	BARE SPOT	290	
20-09-03212-003	20PB17012-S3	DRIP LINE	370	

Environmental Hazards Services, L.L.C

Client Number: 106425

Report Number: 20-09-03212

Project/Test Address: 20Pb17012, Stanley Ave; Clarksburg, WV

Lab Sample Number	Client Sample Number	Collection Location	Concentration ppm (ug/g)	Narrative ID
-------------------	----------------------	---------------------	--------------------------	--------------

Method: ASTM E-1979-17/EPA SW846 7000B

Reviewed By Authorized Signatory:

Nonresponsive based on revised scope

QA/QC Clerk

The Federal lead guidelines for lead in soil is 400 ug/g (ppm) in play areas, and 1200 ug/g (ppm) in bare soil in the remainder of the yard. The Reporting Limit (RL) is 10.0 ug Total Pb. All internal quality control requirements associated with this batch were met, unless otherwise noted.

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Unless otherwise noted, samples are reported without a dry weight correction. Sample location, description, area, volume, etc., was provided by the client. If the report does not contain the result for a field blank, it is due to the fact that the client did not include a field blank with their samples. EHS sample results do not reflect blank correction. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C.

ELLAP Accreditation through AIHA-LAP, LLC (100420), NY ELAP #11714.

LEGEND	ug = microgram	ppm = parts per million
	ug/g = micrograms per gram	



Environmental Hazards Services, L.L.C.

7469 Whitepine Rd
Richmond, VA 23237

Telephone: 800.347.4010

Lead Dust Wipe Analysis Report

Report Number: 20-09-03212

Client: W. VA Bur. For Public Health
350 Capitol Street
Room 313
Charleston, WV 25301

Received Date: 09/21/2020

Analyzed Date: 09/23/2020

Reported Date: 09/24/2020

Project/Test Address: 20Pb17012- Stanley Ave; Clarksburg, WV

Collection Date: 09/16/2020

Client Number:
106425

Laboratory Results

Fax Number:
304-558-0524

Lab Sample Number	Client Sample Number	Collection Location	Surface	Total Pb (ug)	Wipe Area (ft²)	Concentration (ug/ft²)	Narrative ID
20-09-03212-004	20PB17012-DW1	CHILDS WIND	SL	350	0.250	1400	
20-09-03212-005	20PB17012-DW2	POCKET DOOR	SL	18.4	0.250	73.6	
20-09-03212-006	20PB17012-DW3	DESK	SL	57.7	0.250	231	
20-09-03212-007	20PB17012-DW4	BLANK		<5.00	—	—	

Environmental Hazards Services, L.L.C

Client Number: 106425

Report Number: 20-09-03212

Project/Test Address: 20Pb17012; ☐ Stanley Ave; Clarksburg, WV

Lab Sample Number	Client Sample Number	Collection Location	Surface	Total Pb (ug)	Wipe Area (ft ²)	Concentration (ug/ft ²)	Narrative ID
-------------------	----------------------	---------------------	---------	---------------	------------------------------	-------------------------------------	--------------

Method: ASTM E-1979-17/EPA SW846 7000B

Accreditation #:

Reviewed By Authorized Signatory

Nonresponsive based on revised scope

QA/QC Clerk

Lead Hazard and Clearance Standards Table

Description	EPA - Effective 12/18/2019	HUD Grant Programs
Hazard Standard, Floors	≥ 10 µg/ft ²	≥ 10 µg/ft ²
Hazard Standard, Sills	≥ 100 µg/ft ²	≥ 100 µg/ft ²
Clearance, Floors	< 40 µg/ft ²	< 10 µg/ft ²
Clearance, Sills	< 250 µg/ft ²	< 100 µg/ft ²
Clearance, Troughs	< 400 µg/ft ²	< 100 µg/ft ²
Clearance, Porch Floors	Not Regulated	< 40 µg/ft ²

The Reporting Limit (RL) is 5.00 ug Total Pb. Reported results are not corrected for field blanks. Dust wipe area and results are calculated based on area measurements determined by the client. All internal quality control requirements associated with this batch were met, unless otherwise noted.

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Sample location, description, area, etc., was provided by the client. Results reported above in ug/ft² are calculated based on area supplied by the client. If the report does not contain the result for a field blank, it is due to the fact that the client did not include a field blank with their samples. EHS sample results do not reflect blank correction. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Services, L.L.C.

ELLAP Accreditation through AIHA-LAP, LLC (100420), NY ELAP #11714.

Legend	ug = microgram	ug/ft ² = micrograms per square foot	Pb = lead
	mL = milliliter	ft ² = square foot	



EHS
Laboratories™

Environmental Hazards Services, LLC

www.leadlab.com 7469 Whitepine Rd
(800) 347-4010 Richmond, VA
(804) 275-4907 (fax) 23237

Lead Chain-of-Custody

20-09-03212



Due Date:
09/24/2020
(Thursday)
W

[Signature]

Company Name: West Virginia Bureau for Public Health Address: 350 Capitol Street, Room 313 City/State/Zip: Charleston, WV 25301
Phone: (304) 356-4271 Fax: (304) 588-0524 E-mail: Paul.D.Ice@wv.gov Acct. Number: 106425
Project Name / Testing Address: 20Pb17012 Stanley Ave City/State (Required): Clarksburg, WV
Collected by: Paul Ice Certification Number: 7117090007 Purchase Order Number:

* Do wipe samples submitted meet ASTM E1792 requirements? Yes ☒ No ☐

Turn Around Time (TAT) <input type="checkbox"/> 1-Day <input checked="" type="checkbox"/> 3-Day <input type="checkbox"/> Same Day (Must Call Ahead) <input type="checkbox"/> Weekend (Must Call Ahead) If no TAT is specified, sample(s) will be processed and charged as 3-Day TAT.	Sample Type Single Dust Wipe = DW Soil = S Paint Chip = PC Air = A Composite Soil = CS	Abbreviations FR = Family Room F = Front B = Basement LR = Living Room R = Rear KT = Kitchen DN = Den LT = Left BA = Bath DR = Dining Room RT = Right BR = Bedroom 1 = 1st Fl 2 = 2nd Fl	Surface Type for Dust Wipe FL = Floor CP = Carpet SL = Window Sill WW = Window Well
---	--	--	--

No.	Sample Type	Date Collected	Client Sample ID	Collection Location (LR, KT, LTFBR, RTRBR, etc.)												Surface Type	Area		Paint Chip			Air			Comment
																	Length X Width in inches (Provide paint chip area only if requesting mg/cm2)		mg/cm ²	PPM	%	Flow Rate (L/ min)	Total Time (minutes)	Volume (Total Liters)	
1	S	9/16/2020	20Pb17012-S1	G	a	r	d	e	n						X										
2	S	9/16/2020	20Pb17012-S2	B	a	r	e		S	p	o	t			X										
3	S	9/16/2020	20Pb17012-S3	D	r	i	p		L	i	n	e			X										
4	DW	9/16/2020	20Pb17012-DW1	C	h	i	l	d	s	W	i	n	d	SL	2	X 18									
5	DW	9/16/2020	20Pb17012-DW2	P	o	c	k	e	t	D	o	o	r		2	X 18									
6	DW	9/16/2020	20Pb17012-DW3	D	e	s	k							2	X 18										
7	DW	9/16/2020	20Pb17012-DW4	B	l	a	n	k							X										
8															X										
9															X										
10															X										
Released by: Paul Ice														Signature:								Date/Time:			
Received by: Nonresponsive based on revised scope														Signature: Nonresponsive based on revised scope								Date/Time: 9/21/2020 1:57PM			

Form 5.4a Field Sampling Form for Dust. (Single-Surface Sampling)

(Use a separate form for each housing unit, common area, or exterior. Sample all layers of paint, not just deteriorated paint layers.) Page ____ of ____

Property address: Stanley Ave. Clarksburg WV

Name of property owner: **Ex. 6 Personal Privacy (PP)**

Apt. No. _____ Common Area, Housing Unit, or Exterior No.: _____

Name/Firm of risk assessor: Paul Lee

Date of assessment: 9/16/2020

Sample Number	Room or Entryway	Surface Type ¹	Exact Location of Wipe Sample	Is surface smooth & cleanable?	Sample Area ² (inches x inches)	Sample Area ³ (ft ²)	Lab Result ⁴ (µg/ft ²)	Notes
20PB17012-DW1	Childs window	S	Aside window	Y	2 x 18			
20PB17012-DW2	Pocket door		Living Room Door	Y	2 x 18			
20PB17012-DW3	Desk		Desk	Y	2 x 18			
20PB17012-DW4	Blank				x			
					x			
					x			
					x			
					x			
					x			
					x			
					x			

¹Hard Floor (HF), Carpeted Floor (CF), or Interior Window Sill (S)

²Measure to the nearest 1/8th or 1/10th of an inch. [1/8 = 0.125, 2/8 = 0.25, 3/8 = 0.375, 4/8 = 0.5, 5/8 = 0.625, 6/8 = 0.75, 7/8 = 0.875]

³Calculate sample area in square feet as follows: Calculate square inches, then divide by 144.

⁴Provide areas, direct laboratory to report the dust lead result in µg/ft².

NOTE: EPA standards: 40 µg/ft² (interior floors); 250 µg/ft² (interior window sills) for Risk Assessment; 25 µg/ft² and 125 µg/ft² for screen.

Total number of samples on this page: 4 Date of sample collection: 9/16/2020

Shipped to lab by: [Signature] 9/17/2020 (signature and date)

Received by: Nonresponsive based on revised scope 1:07PM 9/21/2020 Reviewed by: 1/1

Date results reported by lab: / / Reviewed by:

Form 5.5 Field Sampling Form for Soil.

(Composite sampling only. Use a separate form for each residential building in a multi-building property.)

Page 1 of 1Property address: Stanley Ave. Clarksburg WV Bldg. or Apt. No. _____Name of property owner: **Ex. 6 Personal Privacy (PP)**Name of risk assessor: Paul Tice

Type of Area Sampled	Sample Number	Location of Composite Sample(s)	Approximate Area of Bare Soil Represented by Composite Sample (ft. ²)	Laboratory Result (ppm or µg/g)
Bare Soil in Play Areas	20PB17012 -S1	Garden		
Bare Soil in Non-play Areas in Dripline/Foundation Area	20PB17012 -S2	Bare spot Back Yard		
Bare Soil in Non-play Areas in the Rest of the Yard	20PB17012 -S3	Sunroom Dripline		
Weighted average of soil-lead concentration in non-play areas of dripline/foundation areas and the rest of the yard:				

NOTE: EPA hazard standard for bare play area soil is 400 ppm or µg/g; for bare non-play area soil is 1,200 ppm or µg/g.

Total number of samples on this page: 3Date of sample collection: 9/16/2020Shipped to lab by: [Signature]9/17/2020 (signature and date)

Nonresponsive based on revised scope

9/21/2020 1:07PM

Reviewed by: _____/_____/_____

Date results reported by lab: _____/_____/_____ Reviewed by: _____/_____/_____



WVDHHR/BPH - Office of Laboratory Services
Environmental Chemistry Laboratory

4710 Chimney Drive Suite G
Charleston, WV 25302
Ph. 304-965-2694

Laboratory Analytical Report

Final Report

Folder #: E20W004526
Date Received: 09/16/2020
Purpose: Lead Assessment

Submitter:
Client ID: 1915
OFFICE OF ENVIRONMENTAL HEALTH SERVICES
Kanawha
350 CAPITOL STREET ROOM 313
CHARLESTON, WV 25301

Sample #: E20W004526-001
Collected By: PAUL ICE
Collection Point: BATHROOM COLD 20Pb17012-W1

Fluoride Plant Result:
Lead/Copper (First Draw) Water Last Used: 09/15/2020 22:00

Chain of Custody: N
Date Collected: 09/16/2020
Time Collected: 09:05
Comments:

Test	Results	Qualifier	Test Method	MCL (SMCL)	MRL	MDL	Date/Time Tested	Tested By
Lead	10.8 ug/L		EPA 200.8	15 ug/L	1 ug/L	0.329 ug/L	10/06/2020 09:54	Gregory Young

MCL = Maximum Contaminant Level SMCL = Secondary Maximum Contaminant Level MRL = Minimum Reporting Level MDL = Method Detection Limit

Approved By: Matthew Keaton

Date Reported: 10/09/2020

OFFICE OF ENVIRONMENTAL HEALTH SERVICES
Attention To: MICHELLE COCHRAN
350 CAPITOL STREET ROOM 313
CHARLESTON, WV 25301

Date Printed: 10/09/2020 10:12 Page 1 of 1

ED_006008A_00000086-00025

Performance Characteristic Sheet

EFFECTIVE DATE: September 24, 2004

EDITION NO.: 1

MANUFACTURER AND MODEL:

Make: Niton LLC

Tested Model: XLp 300

Source: ^{109}Cd

Note: This PCS is also applicable to the equivalent model variations indicated below, for the Lead-in-Paint K+L variable reading time mode, in the XLi and XLp series:

XLi 300A, XLi 301A, XLi 302A and XLi 303A.

XLp 300A, XLp 301A, XLp 302A and XLp 303A.

XLi 700A, XLi 701A, XLi 702A and XLi 703A.

XLp 700A, XLp 701A, XLp 702A and XLp 703A.

Note: The XLi and XLp versions refer to the shape of the handle part of the instrument. The differences in the model numbers reflect other modes available, in addition to Lead-in-Paint modes. The manufacturer states that specifications for these instruments are identical for the source, detector, and detector electronics relative to the Lead-in-Paint mode.

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS:

Lead-in-Paint K+L variable reading time mode.

XRF CALIBRATION CHECK LIMITS:

0.8 to 1.2 mg/cm² (inclusive)

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm² in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm² film).

If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instruments into control before XRF testing proceeds.

SUBSTRATE CORRECTION:

For XRF results using Lead-in-Paint K+L variable reading time mode, substrate correction is not needed for:
Brick, Concrete, Drywall, Metal, Plaster, and Wood

INCONCLUSIVE RANGE OR THRESHOLD:

K+L MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm ²)
Results not corrected for substrate bias on any substrate	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE:

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing ("HUD Guidelines"). Performance parameters shown on this sheet are calculated from the EPA/HUD evaluation using archived building components. Testing was conducted in August 2004 on 133 testing combinations. The instruments that were used to perform the testing had new sources; one instrument's was installed in November 2003 with 40 mCi initial strength, and the other's was installed June 2004 with 40 mCi initial strength.

OPERATING PARAMETERS:

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

SUBSTRATE CORRECTION VALUE COMPUTATION:

Substrate correction is not needed for brick, concrete, drywall, metal, plaster or wood when using Lead-in-Paint K+L variable reading time mode, the normal operating mode for these instruments. If substrate correction is desired, refer to Chapter 7 of the HUD Guidelines for guidance on correcting XRF results for substrate bias.

EVALUATING THE QUALITY OF XRF TESTING:

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing. Use the K+L variable time mode readings.

Conduct XRF retesting at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below.

Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. Do not correct the original or retest results for substrate bias. In single-family and multifamily housing, a result is defined as a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF results.

Compute the average of all ten re-test XRF results.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If

the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

TESTING TIMES:

For the Lead-in-Paint K+L variable reading time mode, the instrument continues to read until it is moved away from the testing surface, terminated by the user, or the instrument software indicates the reading is complete. The following table provides testing time information for this testing mode. The times have been adjusted for source decay, normalized to the initial source strengths as noted above. Source strength and type of substrate will affect actual testing times. At the time of testing, the instruments had source strengths of 26.6 and 36.6 mCi.

Testing Times Using K+L Reading Mode (Seconds)						
Substrate	All Data			Median for laboratory-measured lead levels (mg/cm ²)		
	25 th Percentile	Median	75 th Percentile	Pb < 0.25	0.25 ≤ Pb < 1.0	1.0 ≤ Pb
Wood Drywall	4	11	19	11	15	11
Metal	4	12	18	9	12	14
Brick Concrete Plaster	8	16	22	15	18	16

CLASSIFICATION RESULTS:

XRF results are classified as positive if they are greater than or equal to the threshold, and negative if they are less than the threshold.

DOCUMENTATION:

A document titled *Methodology for XRF Performance Characteristic Sheets* provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. For a copy of this document call the National Lead Information Center Clearinghouse at 1-800-424-LEAD.

This XRF Performance Characteristic Sheet was developed by the Midwest Research Institute (MRI) and QuanTech, Inc., under a contract between MRI and the XRF manufacturer. HUD has determined that the information provided here is acceptable when used as guidance in conjunction with Chapter 7, Lead-Based Paint Inspection, of HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*.

The EI Group, Inc.

This certifies that

Paul Ice

Student Address: 5041 Elmhaven Circle, Charleston, WV 25313

Has attended and satisfactorily passed an examination
covering the contents of an approved course titled

Lead Risk Assessor Initial (16-Hour)

7118010007

Certificate Number



Social Security Number

January 11 - 12, 2018

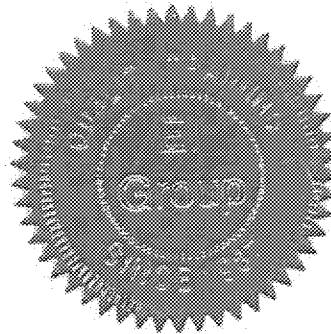
Course Dates

January 12, 2018

Exam Date

January 12, 2021

Expiration Date



4186 Innslake Drive
Glen Allen, Virginia 23060
(804) 320-9300

*EPA Approved Under
Title X*

Glen Allen, VA

Location

Christopher B. Murray, Training Program Manager

Eric Cureton, Primary Instructor

3331001286

Course Approval Number